

Claims

1. A nonaqueous electrolyte secondary battery comprising:
 - a negative electrode constituted of a carbonaceous material permitting reversible insertion and desorption of lithium;
 - a positive electrode permitting reversible insertion and desorption of lithium;
 - a separator separating the positive electrode and negative electrode from each other; and
 - a nonaqueous electrolyte composed of an organic solvent with a solute of lithium salt dissolved therein;
 - said nonaqueous electrolyte containing vinylene carbonate and di(2-propynyl) oxalate, and said vinylene carbonate being added in an amount of 0.1 to 3.0% by mass, and said di(2-propynyl) oxalate in an amount of 0.1 to 2.0% by mass, relative to the mass of said nonaqueous electrolyte.
2. The nonaqueous electrolyte secondary battery according to claim 1, wherein the packing density of said negative electrode active material is 1.3 g/ml or higher.
3. The nonaqueous electrolyte secondary battery according to claim 1, wherein said nonaqueous electrolyte is composed of a mixed solvent of ethylene carbonate and noncyclic carbonate.
4. The nonaqueous electrolyte secondary battery according to claim 3, wherein the proportion of said ethylene carbonate is 20 to 40% by volume of the mixed solvent.
5. The nonaqueous electrolyte secondary battery according to claim 3, wherein said noncyclic carbonate is composed of at least one item selected from ethyl methyl carbonate, diethyl carbonate and dimethyl carbonate.
6. The nonaqueous electrolyte secondary battery according to claim 5, wherein the proportion of said diethyl carbonate is 0 to 30% by volume of the mixed solvent.
7. The nonaqueous electrolyte secondary battery according to any one of claims 1 to 6, wherein said nonaqueous electrolyte secondary battery is deployed inside a metallic case whose thickness is 0.15 to 0.50 mm.